

German-based J. Rettenmaier & Sohne Selects Iowa for \$23-Million Oat Fiber Facility

Roquette America is building a new polyol production facility in Keokuk, Iowa.

The new facility will help meet “the rapidly growing functional and healthy foods market.”

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When J. Rettenmaier USA's new \$23-million dietary oat fiber manufacturing plant begins operations in late 2005 in the eastern Iowa community of Cedar Rapids, it will join a burgeoning number of food ingredient companies in the area. The plant, which will initially employ 26 Iowans, will convert oat hulls to oat fiber for use in a wide range of food products.

The company is tapping into the increasing demand for health-oriented and fortified foods in the U.S. Besides other beneficial effects, oat fiber helps reduce the overall carbohydrates in breads, cereals, pastas and pastries.

“The North American food and beverage markets are very important to us,” says Michael Hempe, technical department manager for J. Rettenmaier & Sohne, the 127-year-old German-based parent company that's considered the world leader for insoluble fibers based on oats, wheat and fruits. “This plant is being constructed in response to the increasing demand for oat fiber by the food industry. Food companies are realizing that dietary fiber, especially oat fiber, is an important ingredient in enhancing

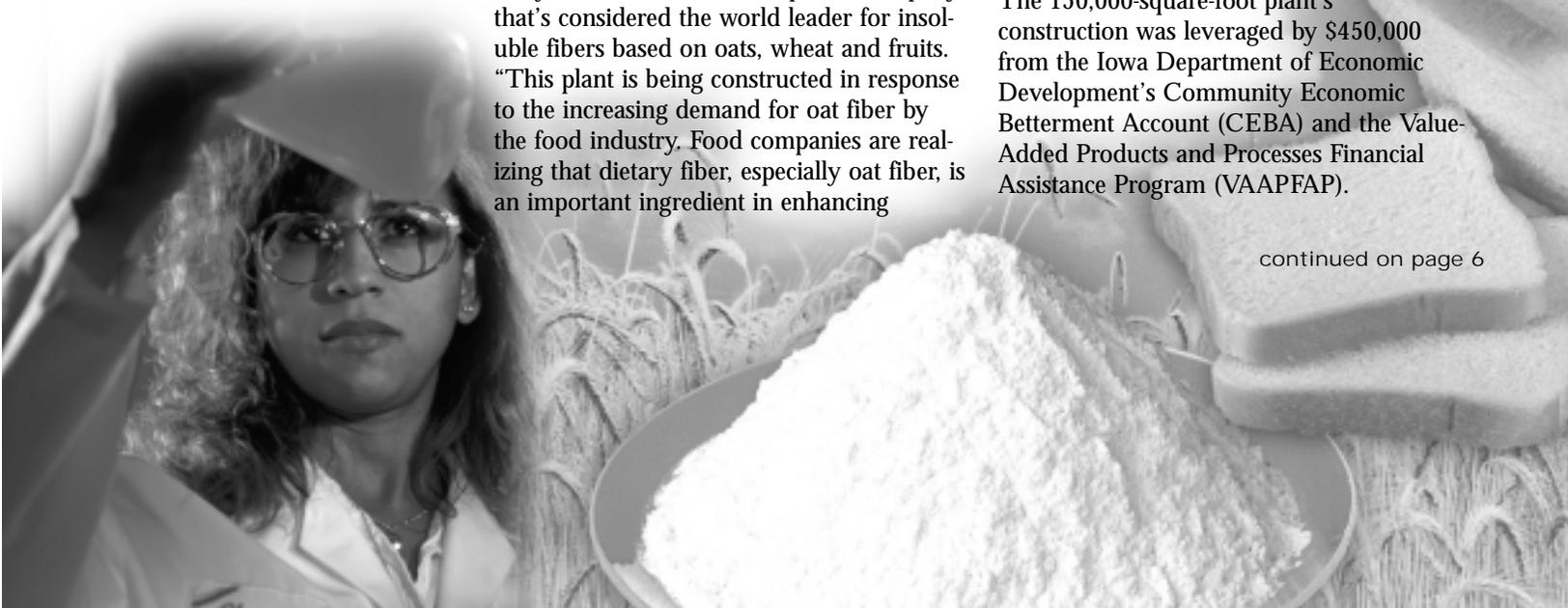
existing foods and creating new food products with improved nutritional quality.”

Sold under the VITACEL® brand name, J. Rettenmaier's oat fiber is neutral in taste, odor and color. “Due to its insoluble character, our oat fiber significantly improves the texture and stability of our customer's end food products,” says Hempe.

Doing business in 130 countries, J. Rettenmaier executives scouted many sites for its oat fiber facility. “The exceptional business environment in Cedar Rapids and Iowa was instrumental in our selection process,” says Hempe. “We will also be close to the raw materials needed for the plant.” The company hopes to buy oat hulls from Cedar Rapids cereal manufacturer Quaker Oats. J. Rettenmaier also operates a pharmaceutical ingredient business, JRS Pharma LP, in Cedar Rapids.

The 150,000-square-foot plant's construction was leveraged by \$450,000 from the Iowa Department of Economic Development's Community Economic Betterment Account (CEBA) and the Value-Added Products and Processes Financial Assistance Program (VAAPFAP).

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Proliant ingredient may checkmate cholesterol

World champion chess player Gary Kasparov noted that chess computers look at millions of positions per second, weighing each one to find the mathematically best moves. And yet a human, seeing just two or three positions per second, but guided by intuition and experience, is able to compete with the mighty machines. Such is the story behind ImmunoLin®, an immunoglobulin protein isolate, developed by a global leader in applied protein sciences, Proliant Health Ingredients, which is headquartered in Ankeny, Iowa.



Proliant Health Ingredients specializes in the development of ingredients from natural sources for the human health and nutrition industry, including the dietary supplement, clinical nutrition, consumer health and functional food markets. Exciting new technologies are used to isolate bio-active proteins and peptides that play vital roles in human health.

“Iowa is ideally suited for a start-up biotech company that is tied to agriculture. More importantly, Iowa is also a great place to live and work, and that allows us to retain highly trained employees. We love Iowa!”

Eric Weaver, President/CEO, Proliant Health Ingredients.



A six-week study by Dallas-based Cooper Institute found that men and women with moderately high cholesterol had a six percent drop in total cholesterol after just three weeks of using Proliant’s product. More importantly, LDL, the “bad” cholesterol most closely associated with heart disease, decreased by seven percent while HDL, the “good” cholesterol, remained constant.



Inspiration for the study came when researchers at the company observed that two studies in the 1990s showed milk from immunized cows had higher immunoglobulin content than did milk from non-immunized cows, and appeared to lower cholesterol in those who drank it. The researchers surmised that the immunoglobulin, a protein fraction in whey protein, was responsible for the effect. Although effect was unusual for an oral protein, researchers decided to test their theory with a one-week pilot study conducted in-house. The positive results led to the full-blown clinical study.

Proliant has more than 50 studies, some conducted by Iowa State University, showing ImmunoLin® supports the immune response in animals. Several branded natural products companies already use the protein in their formulations for its immune-enhancing effects. ■

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Roquette America Steams Ahead With New Polyol Production Facility in Iowa

With its recent completion of a 50-megawatt co-generation plant, Roquette America is now turning its attention to an expansion project that may become one of the biggest capital investments in southeast Iowa's history.

Building upon the nation's ever-growing demand for low-carb, healthy foods, Roquette America's upcoming expansion project could dwarf the company's recently finished natural gas-fired power plant in size and investment.

According to Mike Jorgenson, Roquette America president and CEO, the company's new polyol production plant "will process Iowa's corn and soybeans into all-natural healthy products."

The new facility will manufacture polyols, sorbitol and maltitol, and other food ingredient products. "Food makers are increasingly turning to these sugar-free, specialty carbohydrates for use in sugar-free, low-calorie, low-carbohydrate foods, and the rapidly growing 'functional and healthy foods' market," says Jorgenson.

This latest advancement would not have happened without completion of the co-generation plant. Co-generation, a process by which steam is created and captured to produce electricity, is one of the most energy-efficient sources. "The cogeneration facility gives us a competitive energy cost structure that will allow us to grow our businesses," says Jorgenson.

French-based Roquette Freres, parent company of Keokuk, Iowa-based Roquette America, is the world's leading producer of sugarless sweeteners and one of the world's largest starch producers. Roquette's Keokuk plant currently wet mills corn to produce high fructose corn syrup, specialty starches, mannitol and dextrose as well as polyols, sorbitol and maltitol.

Its corn-derived specialty starches are used by customers manufacturing paper, cosmetics, textiles and pharmaceuticals. Dextrose is commonly used in the pharmaceutical industry while mannitol is used as an excipient in pharmaceutical tablets.

The cogeneration plant, as well as its polyol production facility, qualified for benefits from Iowa's New Jobs and Income Program. Administered by the Iowa Department of Economic Development, NJIP provides qualifying companies a series of tax refunds, credits and abatements for expansion projects that meet capital investment and wage levels.

Established in 1933, family owned and privately held Roquette Freres has 12 manufacturing facilities in Europe, Asia and the U.S., Keokuk has been home to Roquette America since 1991. Approximately 450 people are employed at the Keokuk location. ■



For more information on NJIP, or any of Iowa's financial assistance programs, contact an IDED project manager for a confidential consultation at 800.245.IOWA(4692), or visit www.iowalifechanging.com.

Red Star Yeast

Chooses Iowa for \$50-Million Facility

When two world leaders in the food ingredients industry join forces, one realizes that something big—very big—is about to happen. That something is Red Star Yeast, LLC, a joint venture between Archer Daniels Midland and Lesaffre International Corp. of France.

What's big is the construction of a state-of-the-art, \$50-million yeast plant in Cedar Rapids, Iowa. The facility, to be completed in fall 2005, is the largest single capital investment made in this eastern Iowa community in a decade.

Red Star will use high-fructose corn syrup produced by the adjacent ADM Corn Processing plant as the raw material for its liquid and block baking yeast. And according to William Tesch, vice president of operations for Lesaffre Yeast Corp., the process will use technology that will revolutionize the yeast industry.

“While other yeast plants use molasses to produce yeast, no other yeast plant in the world uses high-fructose corn syrup as its sole source of sugar. This is totally new technology that we've developed,” says Tesch. “With molasses, there is residual material the yeast can't use. Here, the yeast will basically use all the corn syrup as it reproduces itself.”

G. Allen Andreas, chairman and CEO of ADM, is equally optimistic about Red Star's potential. “The combination of ADM's production assets and corn syrup capacity in coordination with Lesaffre's world-leading technology in yeast makes us optimistic about the future of our joint venture,” he states.

The project received benefits from two Iowa Department of Economic Development-administered programs. It was awarded a \$500,000 investment from the Iowa Values Fund, and it qualified for a series of tax refunds and credits from Iowa's New Jobs and Income Program (NJIP). When completed, Red Star will employ 80 workers with wages averaging \$20 per hour.

In Cedar Rapids, Iowa, a centuries-old product is being remade with construction of a state-of-the-art plant using 21st century technology. In the process, one of Iowa's most abundant renewable resources—corn—becomes yet another building block in the food ingredient industry.

For more information on how an Iowa location can make your company's profits rise, visit the Iowa Department of Economic Development Web site at www.iowalifechanging.com. For a confidential consultation with an IDED project manager, call 800.245.IOWA (4692).



Iowa's Kemin Industries

Making a World of Difference to Customers Worldwide

It was 1961 when R.W. Nelson founded Kemin in Des Moines, Iowa. The company at that time manufactured mold inhibitors, flavor enhancers, and other ingredients for the animal feed industry. Fast forward 45 years and Kemin Industries, now under the second-generation leadership of Chris Nelson, is a global enterprise with 12 autonomous divisions. Enjoying a 10-year run of double-digit sales growth, Kemin's goal is to reach \$1 billion in annual revenues within the next 10 years.

To that end, Kemin recently announced a \$17.8 million expansion project. The plans call for a new 50,000-square-foot world headquarters and increasing manufacturing capacity. When completed in 2008, the company expects the project will create more than 40 new jobs.

Kemin's Health and Food Ingredient divisions are helping the company meet its aggressive growth plans.

Kemin Health manufactures the carotenoid lutein. "Lutein is an antioxidant and recent scientific studies suggest lutein may play a role in reducing the risk of the eye disease macular degeneration," says Craig Maltby, Kemin Health's communications manager. "Emerging science also supports the idea that lutein may play a role in reducing the

risks of cataract extractions, as well as improve skin health."

FloraGLO® Lutein is Kemin's branded lutein product. "Extracted and purified from marigold flower petals grown in India and Thailand, FloraGLO Lutein is identical to the lutein found in green leafy vegetables and is absorbed directly into the body," says Maltby. "Our customers include manufacturers of multivitamins, nutritional supplements, and food and beverage products."

Kemin Food Ingredients markets a suite of preservative systems and natural antioxidants and extracts. According to Jeff Sporrer, Kemin Food Ingredients marketing manager, "Kemin's SHIELD®, EN-HANCE™ and Fortium™ brand product lines help our customers conserve the flavor, color and nutritional value of their foods."

SHIELD brand antimicrobial systems are formulated specifically for extending the shelf life of bakery goods and tortillas.

EN-HANCE brand antioxidants protect foods and food ingredients containing fats and oils from the damaging effect of oxidation.

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J. Rettenmaier – continued from page 1

The J. Rettenmaier facility in Cedar Rapids joins an ever-growing list of food and ingredient manufacturers and distributors in the area. They include ADM Corn Sweeteners, Cargill, Quaker Oats, Frontier Natural Products, J.W. Swank, General Mills and Red Star Yeast (see page 4 story on Red Star Yeast). ■

Kemin – continued from page 5

“Fortium brand antioxidants and extracts are an all-natural product line perfect for applications on meats, seasonings, ground nuts, salad dressings, and other high-fat matrices,” explains Sporrer. “A natural rosemary extract can delay the onset of color change, pigment loss, flavor or odor change far longer than synthetic ingredients in many applications.”

Kemin’s expansion project was leveraged by a \$550,000 investment from the Iowa Department of Economic Development’s Iowa Values Fund program. The company also received state job training and tax credits, as well as loans and grants from Polk County and the City of Des Moines.

With a track record of leading-edge technology, continuous product improvement and more than 40 years in shelf life extension, Iowa-born and Iowa-grown Kemin Industries looks to a future of growth in Iowa – of course. ■

For more information on any of Iowa’s financial incentive programs, visit the Iowa Department of Economic Development Web site at www.iowalifechanging.com. For a confidential consultation with an IDED project manager, call 800.245.IOWA (4692).

Expertise in food . . .

Food products are a specialization, an industry of excellence, and the largest sector of manufacturing in the state of Iowa. According to Harris InfoSource, manufacturing of foods and ingredients in Iowa employs 58,826 people at 775 plants. Processing and value adding enterprises are fed by nation-leading agricultural production. Iowa is the top producer of corn, soybeans, hogs and eggs in the United States.

Top 100 Food Companies with Operations in Iowa

Rank	Company	Food Sales (\$ Billions)
1	Kraft Foods Inc.	21.9
2	Tyson Foods Inc.	21.9
3	Pepsico	18.3
4	ConAgra Foods Inc.	16.9
5	Nestle (U.S. & Canada)	13.8
8	Sara Lee Corp.	9.8
9	General Mills	9.5
11	Swift & Co.	8.4
12	H.J. Heinz	8.4
13	Smithfield Foods	7.9
15	Coca-Cola Co.	6.3
16	Land O’Lakes	6.3
18	Cargill	5.9
22	Hormel Foods Corp.	4.2
25	Interstate Bakeries Corp.	3.5
39	Ag Processing Inc.	2.1
49	Dairy Farmers of America	1.6
57	Foremost Farms USA	1.2
61	Associated Milk Producers	1.1
73	Birds Eye Foods	.9
76	Wells’ Dairy	.8

Source: Food Processing, 2004

Largest Iowa reinvestment for Burke Corporation

BURKE CORPORATION has announced completion of a two-year expansion to increase capacity, improve operational efficiency and further advance food safety programs.

This 20th expansion in Burke's 19 years is highlighted by its ability to produce an additional 60 million pounds of fully cooked meat annually. Customer demand for Burke's ingredients has resulted in double-digit growth rates over the years the company has been in business. The Iowa Department of Economic Development awarded

\$200,000 to the latest expansion, which will add 16 jobs to the workforce.



New headquarters of Burke Corporation, which has completed a \$16 million expansion in Nevada, Iowa.

“Our long-term outlook and the commitment we have to grow with our customers, both old and new, has resulted in the largest reinvestment in our central Iowa facility in Burke Corporation’s 31-year history,” said Bill Burke, Jr. “The improvement process is never complete and future improvements are on the drawing board.”

The \$16 million improvements bring Burke's total building spaces in Nevada, Iowa, to 239,000 square feet. The expansion features a new corporate headquarters and wastewater treatment facility, expanded freezer space, and an addition to the processing plant. Policy and procedure improvements include enhanced product flow, tracking and packaging methods, additional food safety screening processes, and advanced product formulation techniques to produce more consistent yields.

“We take great pride in our employees and their dedication to continuous improvement, a prominent key result area in Burke's performance program,” says Burke. “We are committed to effective change management and will continue to raise the bar to beat industry standards when it comes to operational efficiency and food safety programs.”

Burke Corporation is an industry leader in fully cooked authentic and specialty meats for food service, industrial, and retail markets, with products under four brands: Premoro® Italian meats, Tezzata® Mexican meats, MagniFoods® specialty meats, and Burke retail meats. Custom formulation and bulk packaging are also available. ■

Consolidating distribution

J.M. Swank, a national distributor of food ingredients, built a new \$4.2 million headquarters and distribution center in North Liberty, Iowa.

Swank chose a location close to Interstate 380, which connects to Interstate 80, for the 120,000-square-foot headquarters and distribution center. The new site consolidates distribution from St. Louis, St. Paul and eastern Iowa for Swank, which is a division of ConAgra Foods.

Working with more than 500 vendors, Swank provides food ingredients to bakeries, dairies, beverage, meat, poultry and prepared-food manufacturers. ■

g u e s t o p i n i o n

Pursuing functional foods



Jeff Rossate
Administrator,
Business
Development,
Iowa Department
of Economic
Development

An advanced foods economy is under development in the state of Iowa that builds on Iowa's established strengths in plant and animal sciences, production agriculture, food science, nutrition, and processing technology.

This new pathway was identified when Battelle Institute studied Iowa's strengths in the biosciences and recommended six technology platforms as opportunities to use these strengths for growing the economy. One of those technology platforms is functional foods, sometimes called nutraceuticals.

Functional foods are plant- and animal-based products that may provide health, immunity or disease fighting benefits beyond their existing value to daily nutrition.

So-called "performance" functional foods that affect moods are one of the most innovative sectors in this rapidly growing market area. Iowa bioscience researchers are examining the impact of nutrients and herbal ingredients on mood and mental

and physical performance.

Iowa State University and the University of Iowa in collaboration have attracted a \$6 million National Institutes of Health grant to study and isolate active chemicals in the commonly used herbs Echinacea and St. John's wort. This work represents a significant step in phytochemical discovery to uncover the antiviral properties of hypericin, a plant chemical present in St. John's wort. The University of Iowa brings a staff of medical and health scientists with skills applicable to food science and nutrition to such projects.

A signature focus of Food Science and Nutrition at Iowa State University is soybean research. Researchers are working to understand the basic mechanisms by which soy imparts health benefits such as lowered cholesterol, improved bone density and cancer prevention.

Functional foods are far outpacing growth in the total food market, with nutritionally improved products accounting for 78 percent of total growth in

more than 35 major food categories, according to Decision Resources Market Research. It's the reason you see companies such as Kemin Industries and J. Rettenmaier & Sohne expanding in Iowa.

Between 2002 and 2007, researchers anticipate the nutraceuticals market may increase an average of 9.9 percent annually.

Fry Foods International estimates the total market for functional foods in Japan, the United States and Europe at approximately \$38 billion.

To capture these new markets, Iowa has forged a Biosciences Alliance with representatives from industry, universities, and economic development to pursue functional foods and other opportunities identified by Battelle. This working group is a public-private partnership seeking to turn advanced food innovations into new business growth.

Stay tuned. We'll have a lot more to talk about in the future. ■